

✓ Claim 13. The three-piece solid golf ball according to Claim 12, wherein the cover has a Shore D hardness of 50 to 60.

✓ Claim 14. The three-piece solid golf ball according to Claim 13, wherein the cover has a Shore D hardness of 55 to 60.--

REMARKS

Claims 1-14 are pending in this application. Support for new claims 6-14 is found at pages 9-11, 14 and 15 of the specification, as well as in the Examples therein. No new matter has been added to the specification.

Issues under 35 U.S.C. § 102(b) and 103(a)

Claims 1-5 have been rejected under 35 U.S.C. § 102(b) and 103(a) as being unpatentable over Asakura '664 (U.S.P. 5,730,664). Claims 1, 2 and 5 have been rejected under 35 U.S.C. § 102(b) and 103(a) as being unpatentable over Moriyama '802 (U.S.P. 5,713,802). Claims 1,2 and 5 have been rejected under 35 U.S.C. § as being unpatentable over Moriyama '802 in view of Tanaka '663 (U.S.P. 5,730,663). Claims 1-5 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Moriyama '856 (U.S.P. 5,697,856) in view

of Sullivan '356 (U.S.P. 6,015,356). These rejections are traversed for the following reasons.

Present Invention

The present invention is directed to a three-piece solid golf ball which includes the following features: (1) a core having a JIS-C surface hardness of 65-83 and a deformation of 0.8 - 5.3 mm; (2) an intermediate layer having a Shore D hardness of 63-70; (3) a cover having a Shore D hardness of 45-62; and (4) a difference in the hardness of the intermediate layer and cover being within the range of 3-20. Use of these features results in advantageous properties as evidenced by the comparative test results summarized in Tables 1-7 at pages 17-28 of the specification. Specifically, Tables 4-7 at pages 24-27 show that Examples 1-6 (present invention) exhibit advantageously improved flight distance (carry), shot feel and controllability properties over Comparative Examples 1-8. Note, for example, that if the core hardness varies over a large range or if the hardness properties of each of the cover/intermediate layer/core falls outside the cited ranges, then disadvantageous inferior properties result.

Distinctions between Present Invention and Asakura '664

Asakura '664 discloses a three-piece solid golf ball having a core (1) with a deformation of 0-6.0 mm, an inner cover layer (2) having a Shore D hardness of 80 or less, and an outer cover layer with a Shore D hardness of 63-73 which is lower than that of the inner cover layer (2). Asakura '664 further discloses that the core deformation should not be less than 4.0 mm (Col. 3, lines 11-18) and that the cover hardness should not be less than Shore D 63 (Col. 4, lines 21-24). Asakura '664 discloses in Table 3 at columns 7-8 that Examples 1-5 have an outer cover hardness of 63-66 which is outside the inventive range of 45-62.

Asakura '664 fails to disclose a golf ball having a core with a JIS-C surface hardness of 65-83 as in the core of the golf ball of the present invention. The Comparative Example 5 in Table 3 of Asakura '664 is the only example which includes inner and outer cover layers having hardness values that fall within the ranges recited in claim 1. However, Asakura '664 describes this Comparative Example as not being desired since the hardness values are outside the desired ranges as evidenced by the descriptions at column 3, lines 12-19 and column 4, lines 21-24. Thus, a person skilled in the art would not attempt to obtain a golf ball having the core hardness properties of the golf ball of the present invention, since the inner and outer cover layer hardness

properties of the Comparative Examples of Asakura '664 are described to be not desired. Asakura '664 also fails to recognize the advantageous properties of the golf balls of the present invention as evidenced by the Comparative test results summarized in Tables 4-7 at pages 24-47 of the specification as discussed above. Therefore, significant patentable distinctions exist between the present invention and Asakura '664.

Distinctions between Present Invention and Moriyama '802

Moriyama '802 discloses a three-piece solid golf ball which includes a core (1) and a cover formed on the core, wherein the cover has a two-layer cover structure of a hard inner cover layer (2) and a soft outer cover layer (3), and the inner cover layer (2) comprises a high-rigid polyamide resin present in an amount of not less than 5% by weight based on the total weight of the inner cover components. Moriyama '802 discloses in Table 1 (at column 5), Examples 1-3 which have inner cover/outer cover layer hardness values of 67/60, 69/60 and 69/61, respectively. The core of the golf ball is formulated as described at column 4, lines 43-46 and includes only one temperature condition.

Moriyama '802 fails to disclose a golf ball having the JIS-C hardness properties and deformation properties of the core of the golf ball of the present invention. Moriyama '802 also fails to

disclose the Shore D hardness range of the intermediate layer with an upper limit of 70 as in the golf ball of the present invention. Therefore, Moriyama '802 fails to recognize the advantages achieved by the golf ball of the present invention as evidenced by the Comparative test results in the specification as discussed above. Therefore, significant patentable distinctions exist between the present invention and Moriyama '802.

Distinctions between Present Invention and Tanaka '663

Tanaka '663 discloses a three-piece solid golf ball core having a deformation of 3.5-6.5 mm, an inner cover layer with a stiffness modulus 3,500-6,000 kgf/cm², and an outer cover layer having a stiffness modulus of 3,000-5,500 kgf/cm² as described at column 1, line 60 to column 2, line 5. Tanaka '663 discloses that the core is formed by subjecting a composition to a single temperature of 155°C as noted at columns 5, lines 39-44. Tanaka '663 corresponds to the Japanese Publication No. 322962/1996 discussed at page 3, lines 3-17 of the present application.

Tanaka '663 fails to disclose an outer cover layer which has the hardness properties falling within the range of the cover layer of the golf ball of the present invention. This is described at page 3 of the present application. Thus, Tanaka '663 fails to recognize the advantages of the present invention with regard to

flight distance and controllability as evidenced by the Comparative test result in the present specification as discussed above. Therefore, significant patentable distinctions exist between the present invention and Tanaka '663.

Even if Moriyama '802 and Tanaka '663 are combined, the resulting hypothetical combined disclosure fails to suggest the specific combination of features (1) - (4) employed in the golf ball of the present invention having the unique advantageously improved properties evidenced by the Comparative test results described in the specification. Additionally, Moriyama '802 and Tanaka '663 cannot be combined because of the inconsistent stiffness modulus ranges for the inner and outer layers of the golf ball described in these documents. Therefore, significant patentable distinctions exist between the present invention and both of these documents whether taken separately or improperly combined.

Distinctions between the Present Invention and Moriyama '856

Moriyama '856 discloses a two-piece solid golf ball with a core (1) and a cover (2), wherein an "intermediate layer" may be provided between the core and cover as noted at column 4, lines 21-29.

Moriyama '856 fails to disclose or suggest the use of an intermediate layer having a hardness greater than a cover layer as in the present invention. Consequently, Moriyama '856 fails to recognize the advantages achieved by the golf ball of the present invention as evidenced by the Comparative test results discussed above. Therefore, numerous patentable distinctions exist between the present invention and Moriyama '856.

Distinctions between the Present Invention and Sullivan '356

Sullivan '356 discloses a two layer cover type three piece solid golf ball in which the outer cover is softer than the inner cover as stated column 42, lines 48-54.

Sullivan '356 fails to disclose a golf ball with a cover layer having a Shore D hardness within the range of the golf ball of the present invention. Thus, Sullivan '356 fails to recognize the advantages achieved by the golf ball of the present invention as evidenced by the Comparative test results discussed above. Therefore, significant patentable distinctions exist between the present invention and Sullivan '356.

Even if Moriyama '856 is hypothetically combined with Sullivan '356, the resulting hypothetical combined disclosure would still fail to include all of the hardness properties for the core/intermediate layer/cover golf ball structure of the present

invention. Consequently, significant patentable distinctions exist between the present invention and both of these documents whether taken separately or hypothetically combined.

It is submitted for the reasons stated above, that the present claims define patentable subject matter such that this application should be placed into condition for allowance.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a three (3) month extension of time for filing a reply in connection with the present application, and the required fee of \$890.00 is attached hereto.

If any questions remain regarding the above matters, please contact Applicant's representative, Andrew D. Meikle, in the Washington metropolitan area at the phone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17;

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particularly, extension of time fees.

Respectfully submitted,

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